

Listing of Claims

The below listing of claims will replace all prior versions of claims in the application.

Claims 1-12: Cancelled.

13. (Currently Amended) An image sensor, comprising:
a sensor array, including a two-dimensional array of pixel elements, that outputs digital signals as pixel data representing an image of a scene; and
a dual-port data memory, a first port of said dual-port data memory coupled to said sensor array for storing said pixel data, and a second port of said dual-port data memory providing a memory interface for exporting said pixel data, said dual-port data memory being fabricated with said sensor array on a same integrated circuit chip.
14. (Currently Amended) An imaging system, comprising:
an image sensor, comprising:
a sensor array, including a two-dimensional array of pixel elements, that outputs digital signals as pixel data representing an image of a scene;
a data memory coupled to said sensor array and fabricated with said sensor array on a same first integrated circuit chip, said data memory for storing said pixel data, wherein said data memory is configured using a first memory interface protocol;
a logic circuit coupled to said data memory and fabricated with said data memory on said same first integrated circuit chip, said logic circuit for accessing said data memory using said first memory interface protocol and performing memory interface conversion to provide providing a an output memory interface configured using a second memory interface protocol different than said first memory interface protocol for exporting said pixel data out of said first integrated circuit; and
an image processing device formed on a second integrated circuit separate from said first integrated circuit and including a memory interface port configured using said second memory interface protocol;

wherein said image sensor is coupled to said memory interface port of said image processing device and said image processing device accesses pixel data in said image sensor using a memory said second memory interface protocol.

15. (Currently Amended) The image-sensor imaging system of claim 14, wherein said second memory interface protocol of said image sensor is a SRAM interface protocol.

16. (Currently Amended) The image-sensor imaging system of claim 14, wherein said second memory interface protocol of said image sensor is a DRAM interface protocol.

17. (Currently Amended) The image-sensor imaging system of claim 14, wherein said second memory interface protocol of said image sensor is a packet protocol synchronous DRAM interface protocol.

18. (Currently Amended) A method in an image sensor, comprising:
capturing an image of a scene using a sensor array;
storing pixel data representative of said images in a data memory being fabricated on a same integrated circuit as said sensor array, wherein said data memory is configured using a first memory interface protocol; and
outputting said pixel data to an image processing device outside of said integrated circuit using a second memory interface protocol; and
receiving said pixel data at said image processing device using said second memory interface protocol, said image processing device being formed on an integrated circuit separate from the integrated circuit on which the sensor array and data memory are formed.

19. (Currently Amended) The image-sensor method of claim 18, wherein said second memory interface protocol is a SRAM interface protocol.

20. (Currently Amended) The image-sensor method of claim 18, wherein said second memory interface protocol is a DRAM interface protocol.

21. (Currently Amended) The image-sensor method of claim 18, wherein said second memory interface protocol is a packet protocol synchronous DRAM interface protocol.

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